



1-of-8 Control Console

DXE-EC-8

DXE-EC-8-INS-Revision 1a



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Introduction

The **DXE-EC-8** is a flexible 8 position controller used to control the DX Engineering **RR8A** series antenna switches or any other product that uses a 12 to 24 Vdc 1-of-8 control format.

The **DXE-EC-8** offers the following features:

- Stainless Steel Housing
- Non-Skid feet
- On-Off toggle switch
- Green LED indicates power is applied
- Filter capacitors on each line
- Internal automatic resettable fuse
- Includes a 2.1 mm power plug for DC power connection



Front and Rear Panels

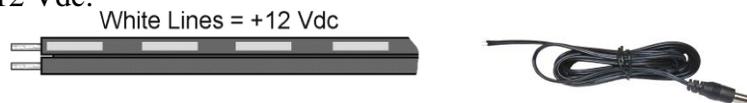


On/Off toggle switch
Green LED
8 Position Rotary Switch



Control Wire Feed Through
Power Connection

The **DC** Input used in most applications will be +12 Vdc. You can input up to 24 Vdc if your application requires 24 Vdc switching. A 2.1 mm power cord is supplied with unit. The wire with the white stripes is the +12 Vdc.



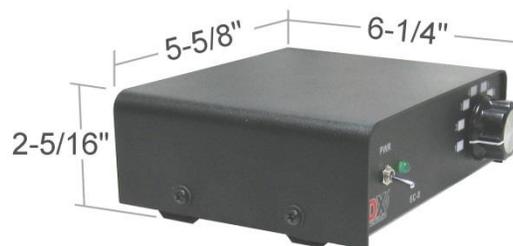
 Outer Connection is GROUND, Center Pin is +12 VDC.

If station power is used, it must be +12 Vdc at 1 amp (fused) minimum. An optional **DXE-PSW-12D1A** 120 Vac 60 Hz to 12 Vdc 1 Amp, fused wall transformer supply is available.



Tools Required

- Phillips Head Screwdriver
- Wire Stripper
- Small Flat Blade Screwdriver



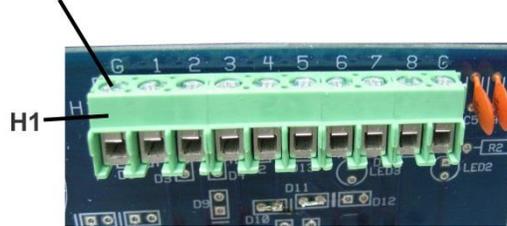
Overall Size

Interior Connections

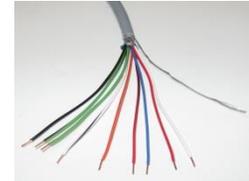
1. Open the unit by removing the four (two per side) Phillips head screws to remove the cover.

2. Push the end of the cable through the control wire feed through on the rear of the unit.
3. Connections for the wire are made on header "H1". Loosen each terminal screw until it is near flush with the top of the connector block as shown below.

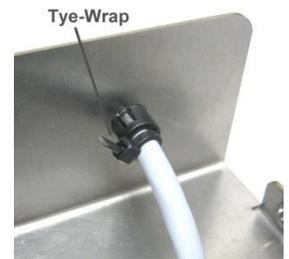
Loosen until each one is near flush to top of H1



4. Strip approximately 1/4" insulation from the 9 conductor wire ends as shown to the right.



5. Connect each wire to a terminal by sliding the wire completely into the wire connection hole. Using a small flat blade screwdriver, tighten the associated screw until the wire is firmly gripped in place as shown below.



Take caution to ensure just the wire is clamped in place, not the wire's insulation which would cause an open or intermittent connection. Do not over tighten the screw so much that the wire is cut instead of being firmly gripped. Use the included Tye-Wrap on the inside of the unit to hold the cable from pulling outward as shown above.

DXE-CW9S Shielded cable is recommended. The drain wire (bare wire) is used as the signal ground return. Both of the "G" connections are internally tied together. When connecting the cable to the **DXE-EC-8**, ensure your cable is wired the same way at the other end to avoid un-necessary troubleshooting. Use the chart below to record which color wire is connected to each terminal connection. The selected position will supply the DC voltage that is connected to the **DXE-EC-8**.

Connector Wire Reference Chart									
G	1	2	3	4	5	6	7	8	G

Control lines (usually BCD) can normally use good quality CAT5e cable (4 twisted pairs of 24 AWG wire) for runs up to 1000 feet. Typical DX Engineering BCD control lines requirements are +12 VDC at 25 milliamps. Depending on the number of control lines needed (usually 3 or 4) you can double up the twisted pairs of CAT5e cable, or use control wire that is at least 22 AWG, allowing runs up to 1500 feet. If you use a cable with more conductors, it is a good idea to tie the unused conductors to ground. For longer runs of control cable, use a line loss calculator to ensure you supply the proper control levels needed.

Approximate BCD Control Line Lengths.

Minimum Copper Wire Gage (AWG)	Length
24	1,000 feet
22	1,500 feet
20	2,000 feet

Optional Items

DXE-CW9S - Shielded Control Wire, 9 conductor stranded, per foot

DXE-CW9S is a high quality shielded outdoor cable. It features 9 copper #24 AWG stranded conductors with aluminum foil shielding plus a #24 stranded tinned copper drain wire. This gives you 8 switch positions plus common ground - plus the separate shield. It has a gray PVC jacket. This cable is ideal for DX Engineering Remote Antenna Switches and Four Square arrays, and should be considered for any low-current custom remote switching application you have - such as receiving antenna arrays. Order by the foot in the length you require. Price shown is per foot. A nice feature is the "rip cord", which allows for easy stripping of the heavy jacket without worry about nicking or accidentally cutting the conductors.



AC Adapter 12VDC/1000mA - DXE-PSW-12D1A

The DXE-PSW-12D1A is an AC Wall Transformer Adapter to furnish 12 Volts DC at 1000 mA from 120 Vac 60 Hz input, fused output. It features a standard 2.1 mm plug connection for 12 Vdc. Outer connection is GROUND Center Pin is input for +12 VDC. Ideal separate power source for DX Engineering Antenna Switch and Transmit Four Square Controllers, NCC-1, TVSU, DXE-MBV-ATU-1 Remote Antenna Tuner Kit and most MFJ automatic antenna tuners



Technical Support

If you have questions about this product, or if you experience difficulties during the installation, contact DX Engineering at (330) 572-3200. You can also e-mail us at:

DXEngineering@DXEngineering.com

For best service, please take a few minutes to review this manual before you call.

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